

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**  
(Attorney Docket No. 006916.00010)

In re U.S. Patent Application of	)	
Viinikanoja	)	
	)	Confirmation No. 7575
Application No. 09/987,849	)	
	)	Group Art Unit: 2622
Filed: November 16, 2001	)	
	)	Examiner: Lin Ye
For: Mobile Terminal Device Having	)	
Camera System	)	

**BRIEF ON APPEAL**

Mail Stop: Appeal Brief-Patents  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

This is an appeal brief in accordance with 37 CFR §1.192 filed in support of Applicant's March 1, 2007 Notice of Appeal. Appeal is taken from the Non-Final Office Action dated December 1, 2006. Please charge any necessary fees in connection with this appeal brief to our Deposit Account No. 19-0733.

**I. REAL PARTY IN INTEREST**

The owner of this application, and the real party in interest, is Nokia Corporation.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

### **III. STATUS OF CLAIMS**

Claims 106-110, 112-117, 119-127 and 129-143 remain in the application. All of the pending claims are shown in the attached appendix.

**IV. STATUS OF AMENDMENTS**

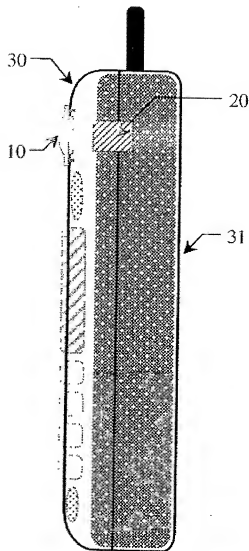
There are no amendments subsequent to the Non-Final Office Action dated December 1, 2006.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

In making reference herein to various portions of the specification and drawings in order to explain the claimed invention (as required by 37 CFR §41.37(c)(1)(v)), Applicant does not intend to limit the claims. All references to the specification and drawings are illustrative unless otherwise explicitly stated.

Aspects of the claimed subject matter are directed to enhancing optical properties of a camera system of a mobile terminal device. (Sub. Spec., Paragraph 1, lines 1-2) In some recited embodiments, the optical properties may be enhanced through the use of “a part of a housing, such as front or back cover or part of the respective covers, with [an] integrated mechanism for changing the optical properties of a lens module, wherein the lens module operates a camera system of a camera system of a mobile terminal device.” (Paragraph 10, lines 1-4) Further aspects of the invention is directed towards a mobile device having a housing, in addition to a camera system having a lens module for taking pictures wherein a “mechanism for changing optical properties of the lens module is integrated into a part of the housing.” (Sub. Spec., Paragraph 11, lines 3-4, emphasis added). As explained in more detail below, in select recited aspects of the invention, “the camera system is built in the mobile terminal device. The mobile terminal device and the camera system comprising the lens module are enclosed by the same housing.” (Sub. Spec., paragraph 35, lines 1-3, emphasis added; see also p. paragraph 99).

There are six (6) pending independent claims (claims 106, 113, 120, 125, 130, and 143). Independent claim 106 is directed to a mobile terminal device comprising two elements. The first element is “a unitary housing of the mobile terminal device comprising at least one telecommunications component and a camera system comprising a lens module which enables taking pictures with optical imaging properties given by the lens module”. Figures 2b and 2c portray an exemplary mobile device. Figure 2b, “shows a mobile phone with an integrated camera module with respect to a further embodiment of the invention. A camera module 42 according to the invention may be provided as an internal module which can be plugged to a mobile phone 2. The camera unit 22 including a lens module for standard imaging is permanently integrated into the camera module.” (Paragraph 136, lines 1-5) Figure 1 and



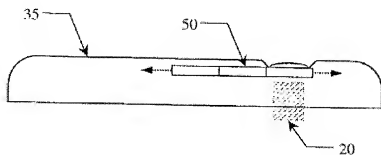
paragraphs 121-133 detail exemplary integrated digital camera modules and optical assemblies that may be utilized.

Figure 2c, reproduced to the left for reference, “shows a side view of a mobile phone integrating a camera module according to FIG. 2b.” “The housing of the mobile phone may consist of two parts, a front cover 30 and a back cover 31. The camera unit 20 is integrated in the mobile phone such that the front cover presents an optical pass through. (Paragraph 138, lines 2-4, emphasis added)

The second element of claim 106 is “a means for changing optical properties of the lens module, the means being adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties, wherein a part of the unitary housing comprises the means for changing optical properties.” Again with reference to Fig 2c to the left, in addition to the camera unit 20, “[a]uxiliary lenses, filters or the like may be detachably connected to the front cover 30 which is show[n] by an optical mechanism 10. (Paragraph 138, lines 4-6, emphasis added) The means that change the optical properties on the lens, which are part of the part of the housing, are in addition to the fully functional camera unit 22. Figures 4a, 4b, 5a and 5b readily show additional embodiments where a part of the unitary housing of the mobile terminal, such as a front cover and/or a rear cover, comprises the means in addition to the camera system for changing optical properties, wherein the camera system is within the housing.

As one example, Fig 4a shows a side view of a mobile phone cover “with [an] integrated sliding arrangement of several lenses with respect to a further embodiment of the invention. FIG.

4b shows a back view of a cover with integrated sliding arrangement of several lenses with respect to FIG. 4a. FIG. 4a has been reproduced below for reference. As seen, the part of the



housing shown in FIG. 4a and FIG. 4b may be “a part of the cover of a mobile phone, e.g. the back cover or the front cover.” (Paragraph 144, lines 4-5; see also paragraphs 146-151 for further embodiments having other structures serving as the means.)

Independent claim 113 relates to a part of a unitary housing of a mobile terminal device. The part of the unitary housing comprises “at least one telecommunications component and a camera system, wherein the part of the housing comprises means for changing optical properties of a lens module of a camera system of the mobile terminal device, wherein the camera module with the lens module enables taking pictures with optical properties given by the lens module and the means are adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties.” As discussed above, the housing shown in FIG. 4a and FIG. 4b may be a part of the cover of a mobile phone, e.g. the back cover or the front cover. As seen in FIG. 4a and FIG. 4b, the housing 35, itself, comprises the means for changing optical properties of a lens module of the camera unit 20. Specifically, “several optical mechanisms are arranged in an assembly 50”, that are positioned to cooperate with the camera unit 20. (Paragraph 144, lines 6-7). Figure 4b “shows a back view of a cover with integrated sliding arrangement of several lenses with respect to Fig. 4a.” (Paragraph 144, lines 2-4) As discussed above, the arrangement 50 is auxiliary to the “standard camera module [that] is provided for the mobile phone which enables taking pictures using the camera unit comprising a standard optical lens module.” (Paragraph 144, lines 11-12)

Independent claim 120 relates to an apparatus for changing optical properties of a lens module of a camera system of a mobile terminal device. The apparatus comprises three elements. The first element is “the lens module [that] enables taking pictures with optical



imaging properties given by the lens module.” Figure 1 and entire paragraphs 121-133 detail exemplary integrated digital camera modules and optical assemblies that may be utilized. The second element is that “the apparatus [is] comprised by a part of a unitary housing of the mobile terminal device comprising at least one telecommunications component and the camera system.” As shown in FIG. 4a and FIG. 4b, a part of a unitary housing of the mobile terminal may be a part of the cover of a mobile phone, e.g. the back cover or the front cover. Furthermore, a “standard camera module is provided for the mobile phone which enables taking pictures using the camera unit comprising a standard optical lens module.” (Paragraph 144, lines 11-12) The last element of claim 120 is that the “apparatus [is] adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties. As seen in FIG. 4a and FIG. 4b, the housing 35 comprises means for changing optical properties of a lens module of the camera unit 20. Specifically, “several optical mechanisms are arranged in an assembly 50”, that are positioned to cooperate with the camera unit 20. (Paragraph 144, lines 6-7). Figure 4b “shows a back view of a cover with integrated sliding arrangement of several lenses with respect to Fig. 4a.” (Paragraph 144, lines 2-4) As discussed above, the arrangement 50 is auxiliary to the “standard camera module [that] is provided for the mobile phone which enables taking pictures using the camera unit comprising a standard optical lens module.” (Paragraph 144, lines 11-12)

Independent claim 125 is directed towards a method comprising an element for “changing optical properties of a lens module of a camera system of a mobile terminal device.” According to the recited feature, the optical properties are changed “by actuating a means for changing the optical properties of the lens module to cooperate with the lens module to enable taking pictures with changed optical imaging properties, wherein the means for changing the optical properties are located in a unitary housing that also includes at least one telecommunications component of the mobile terminal device.” As seen in the exemplary embodiment presented in FIG. 4a and FIG. 4b, the housing 35, itself, comprises the means for changing optical properties of a lens module of the camera unit 20. Specifically, “several optical mechanisms are arranged in an assembly 50”, that are positioned to cooperate with the camera unit 20. (Paragraph 144, lines 6-7). The optical mechanisms are on the inner side of housing 35, thus are within the unitary

housing.

Independent claim 130 is directed towards a system comprising two elements. The first element is “a mobile terminal device having a unitary housing comprising a camera system having a lens module, which enables taking pictures with optical imaging properties given by the lens module and at least one telecommunications component.” Several embodiments of a mobile terminal device having a lens module have been presented in the drawings and discussed above. As described above, in at least one embodiment, a “standard camera module is provided for the mobile phone which enables taking pictures using the camera unit comprising a standard optical lens module.” (Paragraph 144, lines 11-12) The second element is “a means for changing optical properties adapted to cooperate with the lens module to enable taking pictures with changed optical imaging properties, the means for changing optical properties being arranged with the lens module.” As discussed above, in one embodiment, “several optical mechanisms are arranged in an assembly 50”, that are positioned to cooperate with the camera unit 20. (Paragraph 144, lines 6-7). As seen in FIG. 4a, the assembly 50 comprising optical mechanisms provide one means arranged with the lens module for changing optical properties. Also, in relation to the embodiment presented in FIG. 2c, “[t]he camera unit 20 is integrated in the mobile phone such that the front cover presents an optical pass through. Auxiliary lenses, filters or the like may be detachably connected to the front cover 30 which is show[n] by an optical mechanism 10.” (Sub. Spec., paragraph 138, lines 3-6)

Independent claim 143 is directed to a mobile terminal device. The mobile terminal device comprises two elements. The first element is “a camera system”. As shown in FIG 4a and FIG 4b, a “standard camera module is provided for the mobile phone which enables taking pictures using the camera unit comprising a standard optical lens module.” (Paragraph 144, lines 11-12) The second element is “a part of a unitary housing of the mobile terminal device comprising the camera system and at least one telecommunications component, wherein the part of the housing is detachable from the mobile terminal device and comprises at least part of a lens module adopted to cooperate with said camera system. “FIG. 2c shows a side view of a mobile phone integrating a camera module according to FIG. 2b. The housing of the mobile phone may

consist of two parts, a front cover 30 and a back cover 31.” (Sub. Spec., paragraph 138, lines 1-3). Thus, the front cover and the back cover are each a part of the mobile phone. “The camera unit 20 is integrated in the mobile phone such that the front cover presents an optical pass through. Auxiliary lenses, filters or the like may be detachably connected to the front cover 30 which is shown by an optical mechanism 10. Moreover, the front cover 30 may be detachably connected to the back cover 31 of the mobile phone as to replace the whole front cover providing the possibility to permanently mount lenses, filters or other mechanisms to the front cover 30.” (Sub. Spec., paragraph 138, lines 3-9).

## GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- The pending 35 U.S.C. §112, 1<sup>st</sup> paragraph rejection regarding claims 121, 123, 139, 141, and 143 is clearly erroneous;
- The pending 35 U.S.C. §102 rejection regarding claims 106, 108-10, 112-113, 116-117, 119, 125-127, 129, 130-131 and 133-147 fails to address all the claim limitations;
- The pending 35 U.S.C. §102 rejection regarding claims 120-124 and 143 fails to address all the claim limitations;
- The pending 35 U.S.C. §103 rejection regarding claims 107, 114-115, and 132 fails to address all the claim limitations and does not teach, suggest or disclose the subject matter of claims 107, 114-115, and 132; and
- The pending 35 U.S.C. §103 rejection regarding claims 138-142 fails to address all the claim limitations and does not teach, suggest or disclose the subject matter of claims 138-142;

## ARGUMENT

### A. Claims 121, 123, 139, 141, and 143 Meet the Written Description Requirement

The Office Action dated December 1, 2006 alleges claims 121, 123, 139, 141, and 143 do not satisfy the written description requirement of 35 U.S.C. §112. Specifically in regards to claim 143, the Action asserts that:

Nowhere in the applicant's application support the limitations "**a part of a unitary housing** of the mobile terminal device comprising the camera system and at least one telecommunication component, wherein **the part of the housing** is detachable from the mobile terminal device and comprises at least *[sic]* part of the lens module adopted to cooperate with said camera system.

(Non-Final Action dated December 1, 2006; page 3, emphasis in original). In asserting the rejection, the Examiner alleges that the application only provides two embodiments, which the first alleged embodiment is shown in Fig. 2a and the second embodiment is allegedly disclosed in Figs. 2b-7. (*Id.*) As explained in more detail below, Applicants respectfully disagree regarding both assertions in this rejection.

First, the drawings illustrate several exemplary embodiments. As clearly recited in the Brief Description of the Drawings (paragraphs 107 – 119), there are at least 8 different embodiments disclosed in the Figures. For example, as recited in paragraph 111, "Figure 3a shows a side view of a cover with an integrated detachably connected lens according to a further embodiment of the invention." (Sub. Spec., paragraph 111, lines 1-2, Emphasis added). Thus, Figure 3a cannot be said to portray the same embodiment as Figure 2b. Along these lines, it is readily apparent upon studying the remainder of the drawings and the accompanied detailed description, such as paragraphs 141-143, that several different embodiments regarding different aspects of the invention are provided. Thus, Applicants respectfully disagree with the interpretation that the application merely discloses two embodiments and respectfully request that the record indicate that more than 2 embodiments are provided in the application and to be interpreted as such during any examination or appeal proceedings.

Second, Applicants disagree with the Office's repeated assertion that there is no support for "a part of a unitary housing of the mobile terminal device comprising the camera system and

at least one telecommunication component, wherein the part of the housing is detachable from the mobile terminal device and comprises at least *[sic]* part of the lens module adopted to cooperate with said camera system.” First, as clearly recited in the Specification:

FIG. 2c shows a side view of a mobile phone integrating a camera module according to FIG. 2b. The housing of the mobile phone may consist of two parts, a front cover 30 and a back cover 31. The camera unit 20 is integrated in the mobile phone such that the front cover presents an optical pass through. Auxiliary lenses, filters or the like may be detachably connected to the front cover 30 which is shown by an optical mechanism 10. Moreover, the front cover 30 may be detachably connected to the back cover 31 of the mobile phone as to replace the whole front cover providing the possibility to permanently mount lenses, filters or other mechanisms to the front cover 30.

(Sub. Spec., paragraph 138, emphasis added; see also paragraph 145 describing another embodiment, reciting: “Additionally, the cover 35 integrating the assembly 50 may be detachably connected, such that a cover 34 which is shown in FIG. 3a and 3b may be exchanged by a more comfortable cover 35.” emphasis added).

Thus, according to the embodiment shown in Figs. 2b and 2c, the housing may comprise two parts, (a front cover and a back cover), each of which may be considered a part of the housing. Further, the front cover may be detachably connected to the back cover of the mobile device, thus providing written description for the claim element “the part of the housing is detachable from the mobile terminal device”. Furthermore, since the “camera unit 20 is integrated in the mobile phone”, written description is provided for the limitation, “a part of a unitary housing of the mobile terminal device comprising the camera system and at least one telecommunications component.” As provided in the Response dated October 30, 2006, the term “unitary” was amended to the claims “to more clearly recite that the same housing comprises both elements (a camera system and at least one telecommunications component).” (Response dated October 30, 2006; page 11).

Applicants, therefore, respectfully submit the Specification, including the detailed description and the Drawings, “clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed.” M.P.E.P. §2163.02, citing *In re Gosteli*, 872 F.2d 1008,

1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). In view of the foregoing, Applicants respectfully request reversal of the rejection in regards to claim 143. Also, because the Examiner indicated that claims 121, 123, 139, 141 were rejected under the same rationale as claim 143, Applicants respectfully request reversal of the rejection for at least the reasons above.

**B. Yoshida Does Not Anticipate the Subject Matter of Claims 106, 108-10, 112-113, 116-117, 119, 125-127, 129, 130-131 and 133-147**

The Office Action dated December 1, 2006 alleges Yoshida (U.S. Pat. No. 6,690,417) anticipates the subject matter of claims 106, 108-10, 112-113, 116-117, 119, 125-127, 129, 130-131 and 133-147. The Applicants respectfully disagree as Yoshida apparently suffers from the same deficiencies as the art of record previously asserted against the pending claims. Generally, Yoshida relates to a method for processing images. (Abstract, lines 1-2) As seen in Fig. 1 of Yoshida, a digital camera (100) with a telephone (*e.g.* Figs 3. and 4; col. 5, lines 18 to 20 and col. 5, line 61 to col. 6, line 9) is shown. The digital camera further comprises a shutter button (102), a lens (108) and a stroboscope (109) (*cf.* col. 5, lines 27 to 30).

The Examiner first asserts that the lens (108) of Yoshida is equivalent to the lens module of the recited claims. (See, *e.g.*, Office Action dated December 1, 2006, page 4, paragraph 6; stating: “the Yoshida reference discloses...a camera system...comprising a lens module (108) which enables taking pictures with optical imaging properties given by the lens module.”

The Examiner, however, then asserts that the same lens also serves as the means for changing the optical properties of the lens (108). Specifically, the Examiner asserts: “Yoshida discloses...a means for changing optical properties of the lens module (*e.g.*, the lens module is a zoom lens of the three time-magnification, see Col. 7, lines 26-34).” Applicants respectfully submit that lens (108) cannot be the lens module of the camera system that provides optical imaging properties and also a means for changing the optical properties of the same lens.

The cited portion of Col 7, reproduced below for reference, merely discusses the same lens module, which is lens (108). Further, as explained in the text, the position of lens (108) is merely provided to a microprocessor to “perform various image processes.”

More specifically, at first, the lens **108** is a zoom lens of the three-time magnification, which is structured to shift the zooming positions manually, for example. In terms of a 35 mm camera, it has a focal length of 24 mm to 103 mm. Then, this lens position is given to the camera microcomputer **211** by means of a hole device (not shown). Therefore, in accordance with given lens positions of the lens **108**, the camera microcomputer **211** controls the operation of the camera **204** so as to perform various image processes.

Furthermore, camera unit (204) is shown in FIG. 6 of Yoshida. As seen, camera unit (204) comprises lens (108) and there is no additional means shown or described that is part of a unitary housing of the mobile phone. Furthermore, there is no teaching in Yoshida that “a part of the unitary housing comprises the means for changing optical properties” as recited in the independent claims under rejection. For this element, the Examiner asserts Col. 7, lines 35-45 teaches the subject matter, which states:

Meanwhile, as to brightness, the lens is provided with a stop setting of F2.4 to F3.5, and between the lens **108** and the photographing device **213**, there are also provided two kinds of optical apertures, open and stop-down, although not shown in FIG. 6. These apertures are manually operated. Then, the camera microcomputer **211** detects the aperture positions to transfer the detected result to the CPU **29**. Therefore, the CPU **29** is arranged to give warning or the like to the user when the amount of light is insufficient or excessive in accordance with the detected result of the camera microcomputer **211**.

(Office Action dated December 1, 2006, page 4, paragraph 6; see also page 5, lines 1-2, again alleging lens (108) is the means for changing the optical properties of the same lens (108). For at least these reasons, the Applicants respectfully request reversal of the 35 U.S.C. §102 rejection of claims 106, 108-10, 112-113, 116-117, 119, 125-127, 129, 130-131 and 133-147.

### **C. Claims 120-124 and 143 are Not Anticipated by Wang**

The Office Action dated December 1, 2006 alleges Wang (U.S. Pub. No. 2002/155864) anticipates the subject matter of claims 120-124 and 143. Applicants respectfully disagree as



Wang suffers from several of the deficiencies as the art of record previously asserted against the claims. Wang relates to a modular mobile communication device. (Abstract, lines 1-2) A communication module (10) thereof may function independently as a one-on-one communication module device or coupled to a digital camera (40) through a communication port (16). Images taken by the digital camera (40) may be transmitted via the communication module (10) (e.g., Fig. 6; and paragraph [00231]).

The Examiner cites FIGS. 1-6 and paragraph 23 of Wang as teaching the subject matter of independent claims 120 and 143. In regards to claim 120, the Examiner states that “[i]t should be noted that the digital camera has means for changing optical properties of a lens module, such as zooming and focusing operation as well known in the art.” (Office Action dated December 1, 2006, Page 7, lines 12-14 and page 8, lines 10-11). Figure 6 of Wang appears to be the only figure relating to capturing images. “FIG. 6, [reproduced below,] shows an example in which the communication module 10 is coupled with a digital camera 40 through the first connection port 16.” (Wang, paragraph 23, lines 4-7)

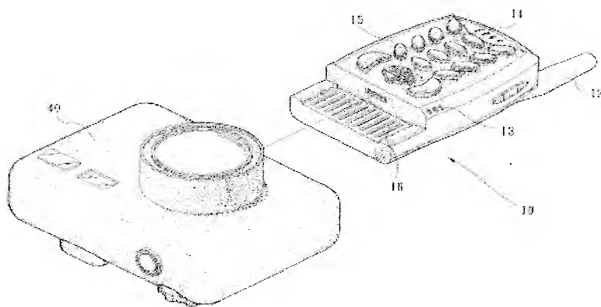
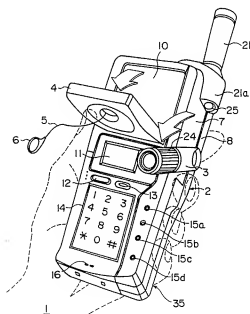


FIG. 6

Thus, there can be no teaching of at least “by a part of a unitary housing of the mobile terminal device comprising at least one telecommunications component and the camera system” as recited in both independent claims 120 and 143. The camera 40 is located in an entirely separate housing the telecommunications equipment, and therefore there is not a unitary housing as recited in the claims. In fact, Fig. 6 of Wang is very similar to Fig. 7 of Umezawa (reproduced below), previously cited against the claims. As reported in the Interview Summary issued by the Examiner on October 17, 2006, Applicants provided proposed claims including the term “unitary housing”. In the Interview Summary, the Examiner wrote the following:



“The proposed claim indicates the camera system is within the same “unitary” housing [sic] along with at least on [sic] telecommunications component. This is different than the camera system disclosed in the Umezawa reference. The Examiner agrees.” (Interview Summary, page 3, lines 2-4) As seen, Wang and Umezawa both have an external camera that may be attached to the separate housing of a mobile device. In neither instance, is there a telecommunications component in the same unitary housing as the camera system.

Along these lines, there is no teaching in Wang of the housing of the mobile terminal “being adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties.” (emphasis added) For at least these reasons, Applicants respectfully request reversal of claims 120-124 and 143 and respectfully solicit an indication of the allowance of the subject matter.

#### **D. Claims 107, 114-115, and 132 Are Not Obvious From Yoshida In View of Suda**

The Office Action dated December 1, 2006 alleges that claims 107, 114-115, and 132 are obvious over Yoshida in view of Suda (U.S. Pat. No. 6,373,524). Yoshida has been discussed above in Section B. The Examiner applies Suda to teach “the means changing optical properties

is detachably connected with said camera system.” (Office Action dated December 1, 2006, page 9, lines 1-3)

As described in previous Responses and in the Pre-Appeal Request for Review, Applicants respectfully submit that “Suda is not directed to cameras within a mobile terminal, and does not teach, disclose, or otherwise suggest a portion of a terminal housing that is detachably connected with a camera system. In fact, nowhere does Suda even recite the terms ‘mobile terminal’, ‘cellular’, or even ‘phone’. Indeed, as explained in the Specification of the instant invention, the low weight, small size, and budgetary restrictions prohibited the application of many advanced optical systems of conventional stand-alone cameras. (See, e.g., Paragraphs 5 – 6). (See, for example, Pre-Appeal Request for Review dated August 23, 2006, page 5, lines, 5-10) Thus, applying the cited teachings of Suda with Yoshida does not create an enabling disclosure. Along these lines, Applicants respectfully submit that applying Suda with Yoshida does not disclose, teach or even suggest the subject matter of 107, 114-115, and 132.

For at least these reasons, the Applicants respectfully request reversal of the 35 U.S.C. §103 rejection of claims 107, 114-115, and 132.

#### **E. Claims 138-142 Are Not Obvious From Yoshida In View of Wang**

The Examiner alleges that “it would have been obvious for one of ordinary skill in the art to modify the camera system of Yoshida (‘417) by providing the part of the unitary housing is detachably connected with the camera system of Wang (‘524).” (Office Action dated December 1, 2006, page 10, lines 15-18) Each of the claims 138-142, depends from claim 130. As discussed above, Applicants respectfully submit that lens (108) of Yoshida cannot be both the lens module of the camera system that provides optical imaging properties and also a means for changing the optical properties of the same lens.

Regarding Wang, there can be no teaching of at least “a unitary housing comprising a camera system having a lens module...and at least one telecommunications component” as recited in claim 130. The camera 40 is located in an entirely separate housing the telecommunications equipment, and therefore there is not a unitary housing as recited in the

claims. In fact, combining Wang with Yoshida still would not produce or suggest the subject matter of the rejected claims.


For at least these reasons, the Applicants respectfully request reversal of the 35 U.S.C. §103 rejection of claims 138-142.

### CONCLUSION

The rejections contained in the Action of December 1, 2006 should be reversed for at least the reasons recited above. Reversal of the rejections is respectfully requested.

Respectfully submitted,

Date: May 1, 2007

  
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**CLAIMS APPENDIX**

106. A mobile terminal device comprising:

a unitary housing of the mobile terminal device comprising at least one telecommunications component and a camera system comprising a lens module which enables taking pictures with optical imaging properties given by the lens module; and

a means for changing optical properties of the lens module, the means being adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties, wherein a part of the unitary housing comprises the means for changing optical properties.

107. A mobile terminal device according to claim 106, wherein the part of the unitary housing comprising the means for changing optical properties is detachably connected to the camera system.

108. A mobile terminal device according to claim 106, wherein the part of the unitary housing integrates an assembly of a plurality of means for changing optical properties each being adapted to cooperate with the lens module of the camera system, wherein the assembly can be changed upon actuation.

109. A mobile terminal device according to claim 106, wherein the means for changing optical properties is at least one of a lens, an objective comprising lenses, at least one filter, and a diffractive optical element.

110. A mobile terminal device according to claim 106, wherein the entire camera system is built-in the mobile terminal device.

112. A mobile terminal according to claim 106, wherein the mobile terminal device is a mobile phone.

113. A part of a unitary housing of a mobile terminal device comprising at least one telecommunications component and a camera system, wherein the part of the housing comprises means for changing optical properties of a lens module of a camera system of the mobile terminal device, wherein the camera module with the lens module enables taking pictures with optical properties given by the lens module and the means are adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties.

114. A part of the unitary housing according to claim 113, wherein the means for changing optical properties is detachably connected.

115. A part of the unitary housing according to claim 113, wherein the part of a housing is detachably connected to a lens module or a camera system.

116. A part of the unitary housing according to claim 113, wherein the part of a housing integrates an assembly of a plurality of means for changing optical properties, wherein the assembly of lenses can be changed upon actuation.

117. A part of the unitary housing according to claim 113, wherein the means for changing optical properties is at least one of a lens, an objective comprising lenses, at least one filter, and a diffractive optical element.

119. A part of the unitary housing according to claim 113, wherein the mobile terminal device is a mobile phone.

120. An apparatus for changing optical properties of a lens module of a camera system of a mobile terminal device, wherein the camera system comprising the lens module enables taking pictures with optical imaging properties given by the lens module, the apparatus being comprised by a part of a unitary housing of the mobile terminal device comprising at least one telecommunications component and the camera system, and the apparatus being adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties.

121. An apparatus for changing optical properties according to claim 120, wherein the part of the unitary housing is detachably connected with the camera system.

122. An apparatus for changing optical properties according to claim 120, wherein the apparatus for changing optical properties comprises at least one means selected from the group consisting of: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combinations thereof.

123. An apparatus for changing optical properties according to claim 120, wherein the unitary housing is a housing of an external camera system attached to the mobile terminal device as an external module.

124. An apparatus for changing optical properties according to claim 120, wherein the mobile terminal device is a mobile phone.

125. A method comprising:

changing optical properties of a lens module of a camera system of a mobile terminal device by actuating a means for changing the optical properties of the lens module to cooperate with the lens module to enable taking pictures with changed optical imaging properties, wherein the means for changing the optical properties are located in a unitary housing that also includes at least one telecommunications component of the mobile terminal device.

126. A method for changing optical properties according to claim 125, wherein the apparatus for changing optical properties comprises at least one means selected from the group consisting of: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combinations thereof.

127. A method for changing optical properties according to claim 125, wherein the camera system is built in the mobile terminal device.



129. A method for changing optical properties according to claim 125, wherein the mobile terminal device is a mobile phone.

130. A system comprising:

a mobile terminal device having a unitary housing comprising a camera system having a lens module, which enables taking pictures with optical imaging properties given by the lens module and at least one telecommunications component; and

a means for changing optical properties adapted to cooperate with the lens module to enable taking pictures with changed optical imaging properties, the means for changing optical properties being arranged with the lens module.

131. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 106.

132. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 107.

133. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 108.

134. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 109.

135. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 110.

136. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 111.

137. A system according to claim 130, wherein the mobile terminal device is a mobile terminal device according to claim 112.

138. A system according to claim 130, wherein the means for changing optical properties is means for changing optical properties according to claim 120.

139. A system according to claim 130, wherein the means for changing optical properties is means for changing optical properties according to claim 121.

140. A system according to claim 130, wherein the means for changing optical properties is means for changing optical properties according to claim 122.

141. A system according to claim 130, wherein the means for changing optical properties is means for changing optical properties according to claim 123.

142. A system according to claim 130, wherein the means for changing optical properties is means for changing optical properties according to claim 124.

143. A mobile terminal device comprising:

- a camera system;

- a part of a unitary housing of the mobile terminal device comprising the camera system and at least one telecommunications component, wherein the part of the housing is detachable from the mobile terminal device and comprises at least part of a lens module adopted to cooperate with said camera system.

**VI. EVIDENCE APPENDIX**

None.

**VII. RELATED PROCEEDINGS APPENDIX**

None.